Upperwood Academy Approach to teaching of Design Technology (DT)

Intent

Our Design and Technology curriculum is taught discretely through specific concepts and themes, which is underpinned by the accelerated learning approach to teaching and learning. The key concepts, principles and themes have been developed from the National Curriculum into a range of progressive knowledge and skills through which the children are helped to grow and develop to succeed in 21st century Britain. This progressive curriculum allows a purposeful way of teaching and learning, enabling us to provide a more meaningful and sequential approach to the schema for DT At Upperwood academy, Design and Technology is an inspiring, rigorous and practical subject.

Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on various disciplines to inspire their learning. As part of our Design and Technology curriculum, we cover several key areas:

- product design & evaluation
- food technology
- textiles
- resistant materials

The Design and Technology curriculum we offer is designed to meet the needs of all our pupils. It is rich, varied, imaginative and ambitious and meets the needs of individual learners by can easily be adapted for pupils with additional needs

Implementation

At Upperwood academy our Design and Technology curriculum is taught discretely through specific concepts and themes, to ensure depth and rigour in key subject concepts and context. The Design and Technology curriculum is rich and varied and provides our pupils with the skills required for life in the 21st Century. Planned, systematic encounters with substantive concepts in specific and varied contexts support pupils' progress. Many of these concepts feature regularly throughout the study of DT in a range of disciplines.

- Design
- Make
- Evaluate
- Technical Knowledge

The Accelerated Learning Cycle, based on the work of Alastair Smith, is applied in all lessons. It stems from the idea of a supportive and challenging learning environment. The cycle has active engagement through multi-sensory learning, encourages the demonstrating understanding of learning in a variety of ways and the consolidation of knowing. A gather, skills, apply approach to planning and delivery of lessons is taken across school to ensure children develop a deep understanding of specific skills and are able to apply these in a range of situations.

Impact

At Upperwood Academy , formative assessment is ongoing throughout each lesson. It judges progress and enables teachers to make flexible adaptions to their planned teaching. Through this regular ongoing assessment, tasks are matched to the ability of each child through scaffolds, adult support and providing a level of challenge that is stimulating for pupils and questioning skills. Alongside formative assessment, Arbor is used as a summative assessment to assess foundation subjects. The analysis of data from Arbor, identifies any gaps or misconceptions to be addressed.

Adaptations

At Upperwood Academy our curriculum is ambitious for all pupils, including those children with SEND. Curriculum designers and teachers have high expectations of what SEND pupils can achieve and the curriculum is not diluted or unnecessarily reduced for SEND pupils. Every pupil is different and so what works for each pupil varies. Pupil's individual needs are carefully considered and adaptations are planned to ensure the success of pupils. The way that our curriculum is designed ensures that chunks of learning are sequenced in a coherent way to enable all pupils, including those with SEND, to build on prior knowledge. Cognitive overload can be a barrier to learning which is one of the reason why we have chosen half termly curriculum drivers.

Where pupils are identified with having complex needs it may be appropriate to provide a personalised curriculum which will be based on individual needs and will retain ambition for the pupil. Where working memory is an issue for pupils, including those with SEND, we look to reduce extraneous load as much as possible as well as identifying key information when teaching. Adaptations to support individual pupils will be recorded on personal school support plans.

At Upperwood academy we do not assume that pupils with SEND learn content better through practical work as this can cause distraction and cognitive overload rather than increase clarity or accessibility. The curriculum is not narrowed for any pupils. Knowledge is taught and then pupils are provided with opportunities for scientific enquiry to test and investigate the knowledge taught. Pupils' specific needs determine the types of adaptations which are required. These adaptations are in how the subject is taught rather than the content pupils are expected to learn. Where appropriate, learning will be chunked into smaller steps and pre learning and consolidation time in planned in to support need. Time is also planned to ensure pupils with SEND are pre taught vocabulary to support their understanding. Adaptations may include supporting pupils to pay attention to key aspects as well as reducing excessive or unhelpful demands on working memory.